A NEW SPECIES OF LONCHAEA FALLEN (LONCHAEIDAE, DIPTERA).

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All workers who have bred out forms from the terminal shoots of white pine or other host plants weeviled by *Pissodes strobi* have encountered a species of *Lonchaea* in more or less abundance. For instance, Graham[1] refers to ". . . a fly . . . *Lonchaea rufatarsus,*" i.e., *L. rufitarsis* Macq. which is now considered to be *L. polita* Say; MacAloney[2] has obtained a fly which was determined for him as *L. laticornis* Meigen; while Barnes[3] found a species of this genus which was determined for him by Aldrich as new. In the past two years, the writer has bred out an extensive series of a fly of this same genus from the caged shoots of white pine, *Pinus strobus;* Scotch pine, *Pinus sylvestris;* and Norway spruce, *Picea excelsa,* collected in nine states.[4] Specimens from three states (Mass., Mich., and Pa.) sent to Mr. J. R. Malloch were very kindly determined by him as " apparently a new species." Comparison has been made with a specimen obtained by Barnes and it is definitely the same as the species described below. It also seems very probable that the *rufitarsis* (*polita*) of Graham and the *laticornis* of MacAloney are identical with the species herein treated.

Because of the economic significance of this fly, its interesting habits, and its relative abundance,[5] it well merits a name. The writer thus ventures to present a description. Holotype and allotype have been deposited in the Museum of the Boston Society of Natural History and paratypes will be deposited in the Museum of Comparative Zoology, Harvard University, Cambridge, Mass.

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[1] Graham, S. A. Biology and Control of the White Pine Weevil, *Pissodes Strobi* Peck. Cornell U. Ag. Ex. Stn. Bul., 449: p. 27. 1926.

[2] MacAloney, H. J. The White Pine Weevil Problem in the New England States. Papers presented at the Forest Protection Conference, Syracuse University: p. 42. 1926.

[3] Barnes, T. C. A personal communication. 1928.

[4] *Viz.,* Me., N. H., Vt., Mass., R. I., Ct., N. Y., Pa., Mich.

[5] The above phases will be discussed in a paper in process of preparation.

Lonchaea corticis n. sp.

Male. Length, exclusive of wings, 3.8 mm. (In allotype, length, exclusive of wings and ovipositor, 3.9 mm.)

Head dull black; frons dull black, without large irregular pits or a transverse depression; interfrontalia with a number of black, incurved hairs with no definite arrangement. Frons wide, about one-half as wide anteriorly as its length (in female, wider, almost as wide as long); upper frontal orbits blue-black, glossy, not microscopically strigose; ocellar region bronze-black. Frontal lunule bears several dark hairs. Face greyish, pruinose; oral margin produced into a ridge. Cheeks without strong bristles, anteriorly fringed with uniform dark hairs. Antennae dark brown at base to reddish brown, greyish or yellowish pruinose; the third segment reddish brown at base, dark brown on outer side, lighter brown on inside; third segment a little less than twice as long as its greatest width; arista regularly and very finely serrate with minute, uniformly short, apically pointing hairs.

Thorax and abdomen a dark steel blue; pteropleura bare; no hairs near the stigmatal bristle; scutellum greenish or bluish to bronze-black, margin fringed with a number of small black hairs; several fine hairs present between the apical pair of scutellar bristles, or just posterior to a line connecting these two bristles. Region at the base of the scutellum unicolorously a dark blue-black and not entirely ferruginous. Metanotum unicolorously dark blue-black, dull or pruinose for one-third to one-half of its width. Thoracic hair, in general, no longer than the abdominal hair.

Legs black; metatarsus, second and third tarsal joints light yellow, last two segments brownish-black; whole tarsus covered with stiff, short, minute black hairs.

Wings iridescent; nervures light brown. Squamae pale yellowish-white, with light yellowish-brown border and pale yellow fringe. Halteres black or nearly so.

Holotype a male which emerged June 1, 1928, from white pine shoots collected at Roslindale, Boston, Mass. Allotype: Same data.

General remarks about series: Size, exclusive of wings, ranges from 3.5 to 4 mm. Shape of abdomen may be elongate, oval, or almost round. The tip may be blunt but usually it is broadly tapered. The dark steel blue of the thorax and abdomen varies to a dark blue-black. The fine hairs between the apical pair of scutellar bristles may be one or more, usually two or four. Other

fine hairs may be present on the dorsum of the scutellum. The apical pair of scutellar bristles may be asymmetrical in position or even reduced to but one bristle. The region at the base of the scutellum (postscutellum?) may show a ferruginous band of varying width but in no member of the series examined did this rust-colored band include the whole sclerite. The halteres vary from brown to black. No correlation between variations and localities was noted but this matter was not studied.

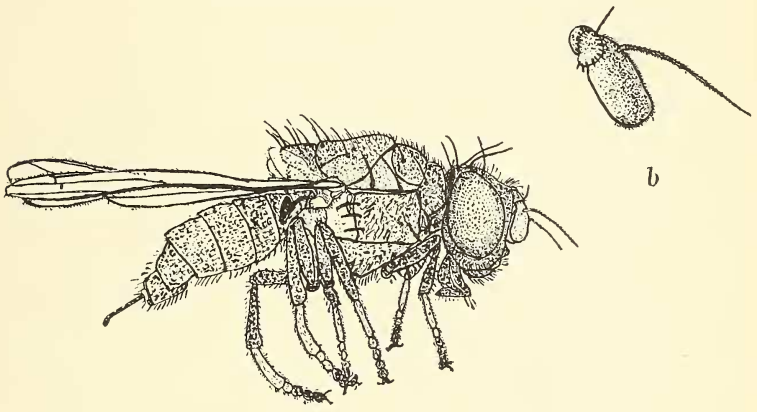

Fig. 1. a—*Lonchaea corticis* n. sp., female; b—antenna.

This species runs as far as couplet 18 in Malloch and McAtee's key[6] and departs therefrom since it possesses *both* of the divergent characters, *viz.*, " third antennal segment not or barely over twice as long as its greatest width " and " some minute hairs between the apical pair of scutellar bristles." A comparison with the published description of *L. watsoni,* a recently described species,[7] was made but this form seems excluded since it runs as far as couplet 23 in the above-mentioned key. It may be stated that this species, then, differs from all others preceding or following it in the key by possessing both of the characters quoted above.

[6] Malloch, J. R., and McAtee, W. L. Keys to Flies of the Families Lonchaeidae, Pallopteridae, and Sapromyzidae of the Eastern United States, with a List of the Species of the District of Columbia Region. Proc. U. S. N. M., Vol. 65, Art. 12. 1925.

[7] Curran, C. Howard. Descriptions of New Canadian Diptera. Canad. Ent., Vol. 58, p. 213. 1926.

A comparison with a specimen of *laticornis,* determined by Malloch, in the Museum of the Boston Society of Natural History, was made. The species described above was close to *laticornis,* particularly as the species so labeled possessed some minute hairs between the apical pair of scutellar bristles, which is at variance with the key. The clear cut character which sets the holotype of *corticis* apart from the specimen of *laticornis* seen, is the condition of the region at the base of the scutellum. In *laticornis,* a ferruginous, pruinose band surrounds the scutellum basally; in *corticis,* the band is absent (or reduced). Although not too much reliance is placed in color characters, the following may be of aid: In *laticornis,* the thorax and abdomen are not unicolorous, the former is a dark steel blue, tinged with brassy, the latter a very light steel blue; the scutellum is conspicuously, unicolorously brassy. In *corticis,* the thorax and abdomen are about the same shade, and the color of both, in general, is darker than the thorax of *laticornis;* the scutellum is not conspicuously, unicolorously brassy as described above.

A comparison was also made with a specimen of *polita,* determined by Malloch, in the same collection. The immediately obvious separating character here is the third antennal joint, which is much longer than in *corticis.*

The flies were particularly abundant in material caged from the following additional localities: Augusta, Me.; Durham and Concord, N. H.; Bradford, Vt.; Milroy, Pa.; Oneonta, N. Y., and Roscommon, Mich.